



19 DEC 1947

ANNUAL REPORT
AND
TRANSACTIONS
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY
FOR THE YEAR
1946-47

PRESENTED TO THE ANNUAL MEETING,

14th APRIL, 1947.

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1947.

Issued November, 1947.

The Yorkshire Philosophical Society.

(Founded 1822.)

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The President, the Hon. Secretary, Hon. Treasurer, and the Keeper are *ex-officio* members of all Committees.

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56 Broadway, York.

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45 Green Lane, Acomb, York.

The Annual Subscription to the Section is five shillings. Membership is open to both members and non-members of the Yorkshire Philosophical Society. Members of the Yorkshire Philosophical Society are cordially invited to the lectures.

THE YORKSHIRE MUSEUM.

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Archaeology	...	DUDLEY M. WATERMAN.
Natural History	...	KENNETH WILLIAMSON (Temporary)

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Gardens	E. HALL, A. NICHOLAS.
Lodge Keeper	MRS. O. GATENBY.



Photo. by J. H. Fidler.

THE NEW LABORATORY.
MR. F. DIXON, ARACHNOLOGIST, WORKING AT THE MICROSCOPY BENCH.

REPORT OF THE COUNCIL

OF THE

YORKSHIRE PHILOSOPHICAL SOCIETY

14th APRIL, 1947.

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THE MUSEUM

IN the last Annual Report your Council acknowledged its duty "to press on as vigorously as circumstances will permit" with the work of complete reorganisation which had been conceived and planned during the war years, and it is gratifying to have to report that at the close of this first year of a new era much has already been accomplished. Not only has this work gathered increasing momentum, but side by side with improvements in what may be termed the "domestic" branch of our activities, the museum's influence has been gradually extended with the result that some of its work is now being conducted on a nation-wide scale—a step entirely in keeping with the traditions of an institution which was instrumental in founding the British Association for the advancement of Science and the Museums Association.

ARCHAEOLOGY.

So far as the "domestic" branch of our labours is concerned, the most significant event was the appointment in November of Mr. Dudley Waterman

to the newly-created post of Archaeologist, as this has greatly accelerated the reorganisation of one of the major departments of the museum. Mr. Waterman has excellent qualifications, and his special knowledge of Roman archaeology will find ample scope for expression in the systematising and display of our rich material in this category.

Since taking up his duties he has been fully occupied, first with the disposition of the Roman collections in the Hospitium, now almost ready for public exhibition; and also with the establishment in the museum basement of an archaeological storage and students' room, which has already been visited by young students from the city and elsewhere. At the present time work is proceeding with the rebuilding of the wall-cases in the former Ethnological Gallery, following the decision to make this room available for the permanent exhibition of our Prehistoric, Viking and Anglo-Saxon collections. In order to accommodate these, the less important Yorkshire bygonies and miscellaneous folk-culture exhibits, which are now deemed to be outside our purview, have been forwarded to the Castle Museum on permanent loan. It is expected that the reconstruction of the existing cases and the installation of new ones now being made to our specifications by Messrs. Edmonds of Birmingham, will be complete in a few months' time, so that the re-opening of this important gallery—so long closed to the public—will not be long delayed.

NATURAL HISTORY.

Undoubtedly the most signal event on the scientific side has been the completion of the laboratory (see plate I), and in the future ready access to the best possible working conditions will remove many of the difficulties which have hampered the preparation of specimens for the exhibition cases, and the preservation and proper examination of material (archaeological as well as zoological) for the study collections. The possession of this well-equipped and up-to-date laboratory has placed us in what is probably a unique position among provincial museums in this country, in so far as we can not only carry out all types of preparatory work with the maximum speed and efficiency and minimum expense, but can also offer *bona fide* students of museum methods and technique splendid facilities for a first-class training. An announcement of our willingness to accept such students as trainees has already appeared in *The Museums Journal*, and this innovation, it is hoped, whilst materially assisting such students, will also help to relieve to some extent our man-power problem.

It is appropriate here to record your Council's deep gratitude to Mr. J. Stuart Syme, F.R.I.B.A., who generously assisted in providing the laboratory benches and fluorescent lighting. Such consideration in these difficult times helps very materially towards the fulfilment of your Council's aim to make the Yorkshire Museum one of the foremost of its kind in the country.

Despite certain practical difficulties the first new series of show-cases in the Mammal Gallery has been completed (see plate II). In this work, which has occupied a large part of Mr. Kenneth Williamson's time during the period under review, our policy has been to combine, with the maximum educational effect, the scientific and popular viewpoints, and at the same time install a permanent exhibition with a high aesthetic appeal. These ten cases embrace all the smaller British mammals, and it is clear from the general appreciation

of the work already accomplished that the structural alteration of further wall-cases for similar treatment of the larger mammals—the whales, seals and deer—should not be long delayed. With regard to the whales, experiments are now being made to determine the best medium for the production of a complete series of scale-models, and as the results so far are highly satisfactory, it is hoped that in the near future we shall be able to place on exhibition a pictorial review of these large and fascinating mammals which will be without parallel in the country. In this way we shall overcome one of the major difficulties that any museum has to face in aiming at a full representation of the mammals on the British list, for to neglect the Cetacea on the score of their immense size or regional inappropriateness would be diametrically opposed to your Council's policy as laid down in the Report for 1943.

Work is in progress on the removal of the bulky fixture now occupying the middle of the Mammal Gallery to a geological and storage study room in the basement, thus creating an opportunity to accord the fine specimen of the Irish Elk a prominent place more in keeping with its importance, grandeur and systematic position. During the year, Professor T. Harris, of Reading University, has examined Phillips' geological types, and has figured and described several novelties in our vast palaeontological series (see "Publications"). Mr. James Wright, of Edinburgh, the foremost British authority on Crinoids, has also made good use of our fossil collections.

Of many acquisitions during the year the most notable is undoubtedly the Albert Wilson herbarium. Mr. Wilson is one of the foremost of British field botanists, and is the author of *The Flora of Westmorland* (Arbroath, 1938) and joint author with Mr. J. A. Wheldon of *The Flora of West Lancashire* (Eastbourne, 1907). This magnificent gift contains many thousands of specimens of flowering plants, mosses, hepatics and lichens, and a more detailed account of it is given in the Transactions (pp. 33-4).

The receipt of this large collection made the provision of a special room for the storage and proper study of our extensive herbaria essential, and accordingly the Keeper's Office was redecorated and the botanical collections installed. This arrangement, whilst not interfering in any way with the Keeper's administrative duties, has very considerably relieved the pressure on space (occasioned largely by the rapid growth of the ornithological collections) in the Students' Room. Mr. A. A. Dallman has continued his work of a critical examination of the herbaria, a necessary first step towards the intended thorough revision of the vast amount of material they contain. For his services to the museum in this and other respects, as well as in recognition of his services to learning through his wise editorship of *The North-Western Naturalist*, your council has been pleased to elect Mr. Dallman an honorary member of the Society.

The museum has also been fortunate in closing one of the biggest gaps in its study-collections—namely, the need for a representative collection of British spiders—through the generosity of Mr. Frank Dixon, a well-known arachnologist who has been collecting for many years. He has recently come to reside in York, and has not only presented his very fine collection, but has also intimated his desire to revise and maintain it, and carry out research in this subject at the museum. Accordingly a corner of the laboratory has been set aside for his use. Mr. W. D. Hincks, the honorary curator of entomology, has been fully occupied with research into the stomach-contents of the Rook in connection with the British Trust for Ornithology enquiry into the bird's

economic status. Dr. J. H. Fidler has given considerable attention to our unique collection of British beetles, and the usual routine determinations have been made for the York Health Department and other bodies.

Several important ornithological collections have arrived during the year. The most notable comprises a series of some 70 bird-skins sent by Mr. Niels á Botni, of Nolsoy, Faeroe Islands, per Mr. Williamson: these include short series of endemic Faeroese races and a few first records for the islands, as noted in the Transactions (p. 31). Through the continued generosity of Mr. W. H. Barrow, of Queniborough, Leicestershire, a most useful collection of some 500 examples of the smaller British passerines was obtained, and both these gentlemen, in recognition of their outstanding services to this museum, were elected honorary members by your Council during the year. A third collection was made by the Keeper when on holiday in the Isle of Man, and it is thought that this, when critically examined in conjunction with comparative material, may produce one or two novelties.

Mr. E. W. Taylor has continued to assist in the revision of the skin-collection, whilst Mr. E. M. Rutter has continued his work on the egg-collections, having completed a catalogue of the Howard, Rutter and subsidiary material.

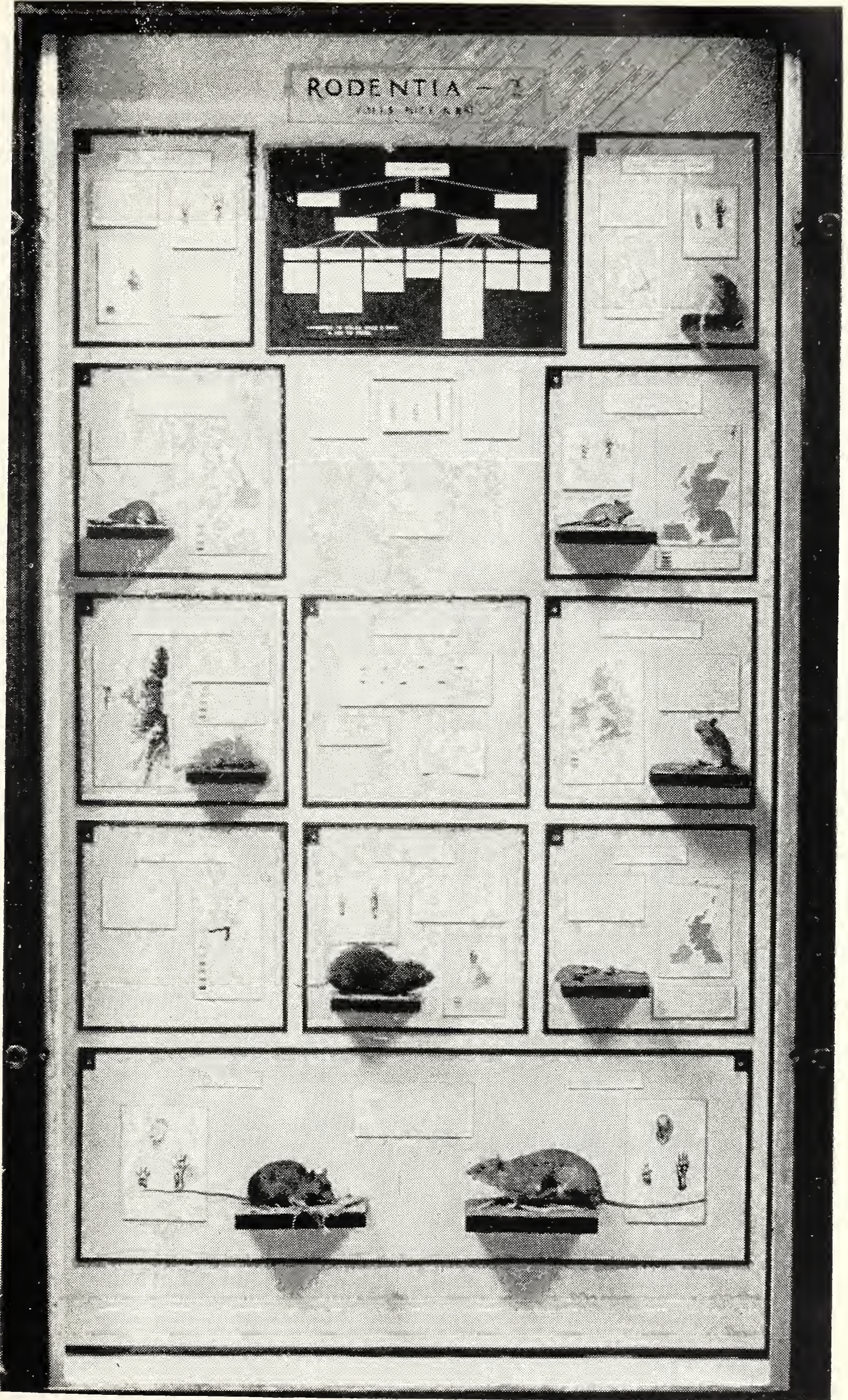
SUBSIDIARY COLLECTIONS.

Your Council's thanks are due to Mr. J. F. E. Gelson Walker and Mr. Geoffrey Thompson for their continued attention to the coins and medals, and for the gifts made by them during the year, also to Col. F. Seebohm for a fine collection of copper and silver coins and tokens. Mr. Geoffrey Thompson has also paid considerable attention to our pewter and silver collections, which he has arranged and placed on view in the Central Hall.

A most interesting and historic acquisition came to us on permanent loan following a decision taken at a general meeting of the Wild-fowlers' Association of Great Britain and Ireland on 16th May, 1946. This is the Colonel Hawker Double Punt-gun now to be seen in the Central Hall, but destined to be the centre-piece of a special exhibition in the Bird Gallery.

MUSEUM FABRIC.

The completion of the laboratory, and the work of reconstruction proceeding in the Ethnological and Mammal Galleries have already been noted. In addition, a separate room was made for the Archaeologist by the simple expedient of throwing a partition across the far end of the Ethnological Gallery, and a room, destined to house the spirit collection, has been prepared in the basement. In this part of the building a strong-room is now being built in which our more valuable material will be kept when not required for exhibition. The archaeological storage and study-room has been completed, and work is in progress on plans for a separate geological storage and students' room, in which the main part of our mineral and palaeontological collections will be stored. In reference to these basement rooms mention must be made of the invaluable voluntary services of Mr. Geoffrey Watson, who was here as a student of archaeology for a period of six months before his call-up to the forces. He was also largely responsible for the re-decoration of the Keeper's Room, and rendered Mr. Waterman great assistance in the archaeological sphere. During the year the staircase and staircase well were re-decorated, and their appearance much improved by the removal of the mammal heads. The external woodwork



THE MAMMAL GALLERY.
AN EXAMPLE OF THE NEW CASES, SHOWING THE METHOD OF PRESENTATION
ADOPTED FOR THE BRITISH MAMMALS.

Photo. by J. H. Fidler.

of the building was also re-painted, and minor improvements of various kinds were effected. It is satisfactory to record that the incidence of death-watch beetle in the woodwork of the Hospitium is now under control, following treatment made on the advice of I.C.I. (per Mr. E. M. Rutter), the Office of Works and Mr. Stuart Syme.

EDUCATIONAL ACTIVITIES

STUDY MATERIAL SERVICE.

The museum's influence as a centre for ornithological studies has increased during the period under review. In October last, the Study-material Service was initiated under the joint auspices of your Council and the British Trust for Ornithology, with the primary object of promoting a closer co-operation between field and museum workers in this branch of science. The study of birds is becoming increasingly popular, and is likely to become one of the foremost scientific pursuits of the British people, so that your Council feels that this step will receive the full approbation of the Society as being one of very considerable educational significance. Under the scheme, bird-skins from our collections are made available on loan for members of the Trust who require to examine specimens for the furtherance of their knowledge. The modern tendency for observers to attempt to determine critical species and subspecies in the field makes personal examination of skins very desirable—if not, indeed, a necessity—for it is only as a result of the close study of actual specimens, such as access to a cabinet collection affords, that a full appreciation of what is or is not possible in sight determination can be achieved. This service, for the first time, brings such opportunities within the grasp of all students; it caters for those who wish to understand the sequence of plumage-changes of different birds, who require material for the illustration of their lectures, or who merely desire to become acquainted with birds unknown to them. Members availing themselves of this scheme defray the cost of postage and registration of the specimens they borrow, and up to the present time neither damage nor loss has been sustained.

Members of the Trust were asked to make a direct contribution to this Service by sending to the museum, with full data, any dead birds they might find during their field excursions. It was felt that the victims of the very considerable wastage of bird-life at lighthouses, through striking telegraph-wires, and during cold weather, could thus be made to serve a useful purpose to ornithology. The response to this appeal has been excellent, and many specimens which would otherwise have been wasted have found their way into our collections, whilst during the recent very severe weather parcels of birds arrived by almost every post, and for some time kept the natural history staff working at full pressure almost exclusively on preservation. Well over a hundred specimens—some of birds or plumage-phases previously unrepresented in our cabinets—have been added to our collection during the winter, and are available under the scheme (see plate III). A detailed report of the first half-year's working of the Study-material Service will be found in the Transactions.

LIBRARY.

In order to relieve the pressure on space in the library much specialist literature on ornithological, botanical and archaeological subjects has been

removed to the appropriate departments, where the books are more readily accessible to students actually working on museum material. Your Council is grateful to our honorary member, Professor F. O. Bower, F.R.S., now of Ripon, for a gift of botanical books and proof-copies of his own important works. Modern works of reference, and other books, have been purchased during the year. The library has been thoroughly cleaned, and it is hoped in the near future to introduce a more modern system of classification.

A part of the library organisation which is little known, and was previously but little used, is the loan service of lantern-slides, negatives and blocks. These three related collections have now been brought together for permanent storage in the office gallery, where they await classification. It is hoped that when more opportunities are available the work of cataloguing them, begun during the year, will be completed, thus simplifying reference to the material. The lantern-slides especially have been in frequent demand during the winter months, and negatives and blocks have been supplied to authors and publishers for the illustration of papers and books. The collection of negatives has been greatly enriched by several thousand plates, formerly the property of the late Sidney Smith, and presented to the Society by his son, for which generous act your Council would like to record its thanks.

PUBLICATIONS.

It is of the utmost importance that, together with their work of modernising the museum displays, the staff should also carry out researches of a more academic nature with a view to publishing contributions on various aspects of science and archaeology. Such publications unquestionably increase the influence and reputation of the museum as an educational force far beyond the immediate environment of its more active work ; whilst they also indicate that the material amassed as study-collections is being put to the use for which such collections are primarily intended. As the museum's work progresses and widens in scope, the responsibilities of the staff in this direction must inevitably increase, and despite the fact that the time and opportunity for such work must always be restricted by the needs of the public galleries, your Council feels that every facility should be given to the staff, and also to those other students who make use of our material, to pursue original investigations. Only in this way can the Society fulfil the terms of its charter.

Our financial resources for the publication of original papers in our Transactions are limited, so that in the main we must have recourse to scientific and other journals, particularly *The North-western Naturalist*, the editor and publishers of which show admirable co-operation.

Mr. Waterman has in the press (*The Antiquaries Journal*) a note on a Bronze Age beaker from Hampshire, and a paper entitled "Excavations at Clausentum, 1937-38." At the present time he is studying the Danish remains from Clifford Street and other sites in York, and is producing an illustrated paper on this material, which, besides placing on record the first critical examination and assessment of these important finds, will serve admirably as a museum handbook to the collection. Similarly, Mr. Sidney Melmore's catalogue of the geological types in the possession of this institution, now in course of publication, will also serve students of palaeontology as an invaluable work of reference. Through the study of our material, Professor T. Harris, of Reading

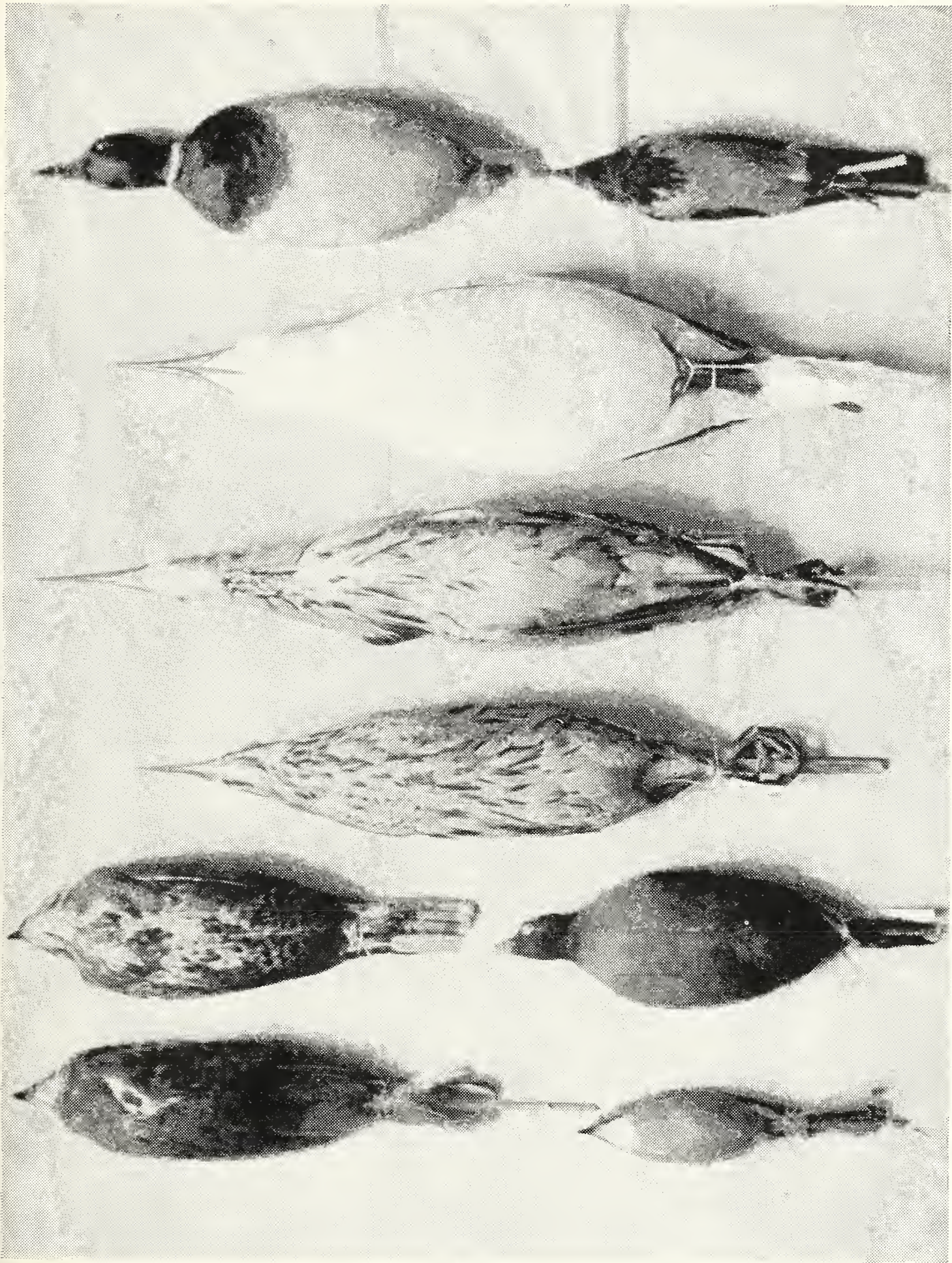


Photo. by J. H. Fidler.

THE STUDY-MATERIAL SERVICE.

SOME BIRDS RECEIVED DURING THE YEAR AND PREPARED AS STUDY-SPECIMENS IN THE MUSEUM LABORATORY.

University, has been able to add to his important series of notes on the Jurassic flora of Yorkshire, whilst Mr. A. A. Dallman's botanical investigations have resulted in several notes in the journal of which he is editor.

The Keeper has in active preparation a long and copiously illustrated paper on "The plumage complexes of the Knot, *Calidris c. canutus* (L.)," which it is hoped will be ready for the press during the forthcoming year, and he is also collaborating with Messrs. Clifford Oakes and R. A. H. Coombes in writing a new county ornithology, "The Birds of Lancashire." Mr. Kenneth Williamson continues to place on record his field-studies of Faeroe birds, and has several notes and papers, as well as a book dealing with the folk-culture and natural history of the Faeroe Islands awaiting publication. Reviews of ornithological books and journals, as well as systematic studies and articles on the general philosophy underlying ornithological work (based on the avowed policy of this institution to co-ordinate field and museum interests) have been undertaken jointly by the Keeper and Mr. Williamson. Mr. E. W. Taylor and Mr. E. M. Rutter have contributed notes on ornithological records to *The Naturalist* and *British Birds*.

A bibliography of the notes and papers which have appeared during the year is given as an appendix to the Transactions (pp. 36-7).

LECTURES AND FILMS.

During the year the Keeper gave lectures to the Round Table and the Women's Guild in York on the development of the Yorkshire Museum, and also spoke on ornithological subjects to the Leeds University Union and the York and District Natural History Society. Both he and Mr. Williamson fulfilled engagements with Peterborough Museum and the Leicestershire and Rutland Ornithological Society. Mr. Williamson also addressed the British Ornithologists' Club in London on bird-life in the Faeroe Islands. A number of requests for similar services had to be turned down by the staff owing to the pressure of work at the museum.

The public were admitted free to the following lectures, which were well attended, in the Tempest Anderson Hall. Again, talks and films on the open air and wild life proved much the most popular.

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| 23rd January, 1946. | "The Significance of Psychical Research," MR. G. N. M. TYRRELL (President of the Society for Psychical Research). |
| 2nd February, 1946. | "Glimpses and Gleanings in Wilder Wales," MR. A. A. DALLMAN (Editor, <i>The North-western Naturalist</i>). |
| 15th February, 1946. | "Songs of Wild Birds and How I Record them," (with gramophone records), DR. LUDWIG KOCH. |
| 2nd March, 1946. | "The Faeroe Islands," MR. KENNETH WILLIAMSON. |
| 16th March, 1946. | NATURAL HISTORY FILMS. |
| 26th October, 1946. | "Hungarian Featherland," a colour film by MR. WALTER HIGHAM. |
| 9th November, 1946. | "Fountains Abbey," by Dr. C. H. MOODY, C.B.E. |
| 23rd November, 1946. | "From the Lune to the Eden," by MR. F. RILEY. |
| 14th December, 1946. | "Plants of the Past," by PROFESSOR T. HARRIS (Professor of Botany, Reading University). |

SUMMER SCHOOL AND OTHER MEETINGS.

The Roman Antiquities Committee of the Yorkshire Archaeological Society held a Summer School at the museum during May, the subject being "Roman Towns." This was equally as successful as former schools have been. During the coming year a meeting of the Prehistoric Society, and a further meeting of the Yorkshire Archaeological Society, are to be held at the museum.

Two meetings of the Yorkshire Naturalists' Union (Vertebrates Section) were held at the museum during the year ; at the first, the Keeper, Mr. E. W. Taylor and Mr. K. Williamson gave addresses, and at the second the speakers were the Keeper and Mr. Rex Proctor. A visit was paid by members of the Yorkshire Conchological Society, who were made welcome by your President and Chairman. The York and District Field Naturalists' Society has continued to use the museum as its headquarters, and the newly-formed Yorkshire Naturalists' Trust, with your Council's permission, has established its Registered Office here.

Parties of school-children and members of other organisations have visited the museum more frequently and on a more organised basis than heretofore.

THE GARDENS.

The Chairman and members of the Gardens Committee have met frequently in order to implement with the least possible delay your Council's plans for the improvement and better maintenance of the grounds. The active interest shown by the President, Lord Feversham, in this department of the Society's work has been much appreciated by the Committee and the Council generally. Your Council is grateful to Mr. A. A. Dallman and others for the gift of interesting new plants. A plan has been prepared for brightening up the approach to the grounds and this is receiving the consideration of the Committee.

As the retirement of Mr. Herbert Tench, after a period of 57 years of loyal and invaluable service, is pending, your Council cannot let this opportunity pass of expressing its deep and sincere gratitude to Mr. Tench for his high efficiency and devotion to the welfare of the Society at all times, and of wishing him good health and happiness in his well-earned retirement.

Improvements to the Bowling Green and to the fencing of the grounds have been effected during the course of the year, and notice-boards throughout the gardens have been renovated and re-lettered.

THE OBSERVATORY.

Minor structural repairs have been made to the roof of the Observatory and Mr. Neville Vear has the re-decoration of the building well in hand. It is hoped soon to re-install the telescope and open the Observatory to the public on certain nights. Your Council is grateful to Mr. Vear for his work in this connection.

METEOROLOGY.

As heretofore climatological reports have been sent to the Air Ministry's Meteorological Office and the local Health Department by Mr. A. Colley, our assiduous recorder. Our records, which go back for over a century, have been

referred to by a number of students, including student-teachers undergoing training at St. John's College. Numerous inquiries from the Press and other interested bodies have been effectively dealt with by Mr. Colley.

MEMBERSHIP.

Membership has been maintained at much the same level as at the end of 1945; the number of new members has been offset by losses due to death, or the departure from York of people in the Services who identified themselves with the Society's work during their stay. The position with regard to student members is no better than in 1945, due to the same causes as given in the Annual Report for that year.

It is the earnest hope of the Council that members will make a special effort to introduce others to the work and aims of the Society during the coming year, for the successful prosecution of the Society's programme as outlined in this and previous reports (and especially that of 1943) is in part dependent upon the funds accruing from this source. It is hoped shortly to offer further inducements to prospective members by increasing the scope of our sectional activities to include groups for those interested in archaeology and astronomy.

OBITUARY.

James Hervey Rutherford, F.R.I.B.A., who passed away at his home at 54 Bootham Crescent, York, on 23rd March, 1946, was elected a member of the Yorkshire Philosophical Society in 1928, and served as a member of the Council between the years 1935-46. He was well-known for his architectural work, especially in connection with designs for churches, public buildings and country mansions.

Rutherford was trained at Edinburgh in the office of Sir R. Rowland Anderson. In 1899 he won the Pugin Scholarship awarded by the Royal Institute of British Architects, and two years later gained the Owen Jones medal and scholarship, which carried an endowment for study in coloured decoration in this country and abroad. Very shortly he entered the office of the late Walter H. Brierley, of York, whom he eventually joined in partnership, thus becoming a member of the long-established firm of architects, amongst whose illustrious names is that of the celebrated eighteenth-century architect, John Carr. Subsequently Rutherford himself was joined in partnership by Mr. J. Stuart Syme, with whom he continued in practice until his retirement in 1939.

FINANCE.

Although the finances of the Society are at present in a satisfactory condition it is realised that as the reorganisation of the Museum and Gardens take effect and the work of the Society increases so will the call upon the Society's funds increase. The Council is therefore grateful to those members who, by entering into a Deed of Covenant, enable the Society to augment its funds by recovering the Income Tax in respect of annual subscriptions.

To those members who have not yet seen their way to complete a Deed of Covenant, the Council would like to point out that this arrangement presents an opportunity for members to help the Society. The Society, as a Charitable

Institution, may recover Income Tax in respect of any member's subscription, provided that the member has signed a Deed of Covenant to pay subscriptions for a period of seven consecutive years. The recovery of the Income Tax is undertaken by the Society.

The interest which your Honorary Treasurer, Mr. J. L. Brockbank, has shown in this scheme, and indeed his constant desire for the effective administration of the whole of the Society's finances, merits the appreciation of the Council and members of this Society.

APPRECIATIONS.

Your Council cannot conclude this Report without expressing its sincere gratitude to the Honorary Curators for their assistance and willing co-operation with the Keeper, and to the many other voluntary workers whose help, as may readily be seen from a perusal of both the Report and the Transactions, is invaluable. The increased facilities for communication afforded by the return to more normal life have enabled us to establish cordial relations with museums abroad, and during the year the national museums of Denmark, Sweden and Ireland have been most helpful to us with the loan of scientific specimens. Your Council expresses with pleasure its gratitude to the undermentioned institutions for their ready willingness to assist our work whenever approached :

In addition, your Council acknowledges with thanks the co-operation and assistance in various ways of the following : The British Trust for Ornithology (Hon. Sec., Mr. R. S. R. Fitter) ; the Edward Grey Field Institute of Ornithology, (Librarian, Mr. W. B. Alexander) ; The Royal Botanic Gardens, Kew (Curator, Mr. D. W. Campbell) ; the Royal Botanic Gardens, Edinburgh ; the Royal Horticultural Society, London ; the Meteorological Office of the Air Ministry, London (Mr. J. Glasspoole) ; Lloyd's of London (Mr. A. H. Appleyard) ; the East Riding County Council (Alderman T. D. Fenby, J.P., and the Clerk, Mr. T. Stevenson) ; Bootham School, York ; the Public Library, York (Librarian, Mr. F. Doherty) ; the Public Library, Scarborough (Librarian, Mr. W. H. Smettem) ; Spurn Head Lighthouse (Head Keeper, Mr. S. D. Knox, and Assistant Keeper, Mr. R. Anderson) ; and Messrs. T. Buncle and Co. Ltd., Arbroath.

Among others, the following persons have been of assistance during the year, and your Council is pleased to express its gratitude :— the Rev. E. A. Armstrong, Cambridge ; Mr. G. H. Ainsworth, Hull ; Mr. James Bartholomew, Torrance, Glasgow ; Major A. W. Boyd, M.C., Frandley, Cheshire ; Mr. H. O. Bunce, Hull ; Miss R. Brooke, Salton, Yorks. ; Mr. W. G. Bramley, Pallerthorpe, Yorks. ; Mr. Hubert Barrow, Queniborough, Leicestershire ; Sir Charles Richmond Brown, Kirbymoorside, Yorks. ; Mr. W. S. Cowin, Douglas, Isle of Man ; Dr. Robert Carrick, Department of Agriculture, University of Leeds ; Mr. R. A. H. Coombes, Bolton-le Sands, Lancs. ; Miss Eva Crackles, Hull ; Mr. A. A. Dallman, Doncaster ; Mr. A. B. Duncan, Dumfries-shire ; Dr. F. W. Dwelly, Dean of Liverpool ; Mr. Frank E. Dodman, Altrincham, Cheshire ; Mr. Bryan Dale, York ; Mr. H. F. D. Elder, Gifford, E. Lothian ; Dr. J. H. Fidler, York ; Mr. Ian Fraser, Isle of Islay ; Mr. James Fisher, Ashton, Northants. ; Mr. W. Graham, Seahouses ; Sir Hugh Gladstone, Penpont, Dumfries-shire ; Mr. R. M. Garnett, Thornton-le-Dale, Yorks. ; Mr. Adam Gordon, Helmsley, Yorks. ; Mr. Eric J. Hosking, London ; Dr. James M. Harrison, Sevenoaks, Kent ;

Mr. W. G. Harrison, Bowdon, Cheshire ; Mr. F. Jefferson, Haxby, York ; Mr. and Mrs. A. H. Karran, Douglas, Isle of Man ; Mr. L. C. Lloyd, Hon. Sec., Caradoc and Severn Valley Field Club ; Mr. W. Lord, Hull ; Mr. Mitchell, Stockton-on-Tees ; Mr. Louis G. Meyer, Douglas, Isle of Man ; Col. Peter S. Norwell, Perth ; Mr. Oates, York ; Mr. A. G. Parsons, Wakefield ; Lord William Percy, London ; Mr. Charles F. Proctor, Hull ; Mr. K. G. Payne, York ; Hr. Niels Fr. Petersen a Botni, Nolsoy, Faeroe Islands ; Mr. W. Ramsden, Manchester ; Mr. H. M. Rogers, M.B.E., and Mr. H. Rogers, Jun., Douglas, Isle of Man ; Major Robert F. Rutledge, Ballinrobe, Co. Mayo, Ireland ; Mr. W. F. H. Rosenberg, Edgware, Middlesex ; Mr. Stuart Syme, York ; Mr. G. W. Temperley, Hon. Sec. Northumberland and Durham Natural History Society ; Mr. Tony Tynan, York ; Miss P. V. Upton, Margaretting, Essex ; Mr. N. Vear, York ; Mr. H. J. Wain, Hon. Sec. of the Burton-on-Trent Natural History Society ; Mr. Athol Wallis, Scarborough ; Yorks. ; Mr. T. G. Walker, Henblas School, Bodorgan, Anglesey ; Mr. M. C. Wainwright, Stamford, Lincs. ; and Mr. Geoffrey Watson, Ripon.

THE YEAR AHEAD.

Our plans for the year ahead are largely dependent upon the work of reconstruction now in progress in the museum, and which has already received notice under departmental headings. We may look, however, beyond these immediate commitments, heavy though the financial strain may be, to even greater improvements and possible sources of increased revenue. Of the improvements envisaged none commends itself to notice more favourably than the installation, at the earliest possible moment, of an aquarium, for such a feature would prove a great attraction to the general public. A large room in the basement is already earmarked for this purpose, and it is estimated that this most desirable innovation could be made a reality for an expenditure of rather less than £500.

It requires little imagination to appreciate the great potentialities of such an exhibition. A well-stocked Aquarium would not only extend our educational services to the city, materially helping the Society to achieve its highest aspirations for the betterment of our cultural life, but it would also prove a financial asset of considerable magnitude, and might well become the wage-earner for the further reconstruction of other important departments.

The necessary alterations to the room, the installation of lighting and heating and the provision of tanks, could be completed within a very short time, and we have had several promises which would ensure an adequate supply of specimens. The matter has been carefully considered from every angle, and neither construction nor upkeep raises any major difficulty. The plan could be implemented at once if sufficient funds were available, and it is felt that a move of such obvious educational and recreational value would meet with official commendation. Ways and means by which the necessary money might be raised are being fully explored by the Council.

NEW MEMBERS, elected in 1946.

Allford, A. T., 22 Marygate
 Andrews, S. N., 34 Rawcliffe Lane
 Booth, N. L., 22 Greencliffe Drive, Clifton
 Brazier, W. H., 6 Hetherton Street
 Brown, Lt.-Col. Sir Charles Richmond, Bart., Stonely Woods, Kirbymoorside
 Cooper, S., 14 Hilbra Avenue, Haxby
 Denyer, Rev. E. H., M.A., St. Olave's Vicarage, 52 Bootham
 Dodsworth, Mrs. Lumley, 18 St. Peter's Grove
 Eastwood, Austin, West Bank, Baghdad, Iraq
 Eggleshaw, George, 11 Queen Anne's Road
 Escritt, W. E., 48 Westminster Road
 Follows, Dr. A. B., 42 Marygate
 Foster, Henry, 67 Acomb Road
 Green, Mrs. E., 25 Westminster Road, Clifton
 Hardy, W. D., 6 Bean Street
 Healing, Mrs. L. C. M., 48 Marygate
 Jackson, James, 17 Wentworth Road
 Juliusberg, Hans, 13 Lendal
 Kellaway, G. P., B.Sc., F.R.G.S., "Somerville," 2 Clifton Dale
 Klawitter, Mrs. D. M., 124 East Parade, Heworth
 Lamb, R. A., F.R.S.A., Mount Mansions, 5 Driffield Terrace
 Lamb, A. J. R., 46 Heworth Green
 Merchant, Laurance, Green View, Poppleton
 Mitchell, T. C., Ph.D., B.Sc., A.R.T.C., 14 Imperial Avenue, Norton, Stockton-on-Tees, Co. Durham
 Neame, Major C. S., L.D.S., 7 St. Leonard's
 Rowntree, Mrs. Colin, 17 Stonegate
 Saville, John, 18 Ainsty Grove, Dringhouses
 Shannon, C. B., 21 Bootham Terrace
 Smith, A. N., M.A., 12 St. Mary's
 Smith, Miss E. F., 17 Sycamore Terrace
 Steinmann, H. A., 8 Abbotsway, Muncaster
 Taylor, E., 13 North Parade
 Thomlinson, H., "The Hut," Clifton Green
 Vile, Mrs. K., 3 St. Mary's Lane, Bootham
 Wardhaugh, W. E., 10 Longfield Terrace
 Wood, Laurence, 57 Petergate
 Wrigley, H. B., 2 Driffield Terrace

DEATHS.

Members.

Birks, W. C., The Poplars, 124 Holgate Road
 Exelby, Mrs. G., 16 Walker Street
 Golledge, G. H., 31 St. Saviourgate
 Harrower, A., J.P., F.F.A., Westow Hall
 Kaye, Miss L. Lister-, 29 Claremont Terrace
 Mackenzie, Mrs. E., 254 Bishopthorpe Road
 McBride, J. G., M.B., F.R.C.S.S., 29 Clifton
 McBride, Dr. P., 3 St. Peter's Grove

McCutcheon, A., 43 Huntington Road
 Rutherford, J. H., F.R.I.B.A., 54 Bootham Crescent
 Segar, Mrs. E. L., 24 St. Mary's
 Walker, Edward, J.P., 46 Stonegate

DEATHS AND RESIGNATIONS.

Members	...	...	...	...	...	34
Student Members	...	...	...	...	...	2
Ticket Holders	...	...	...	...	...	4
						<hr/>
						40
						<hr/>

NEW MEMBERS.

Honorary Members	...	...	...	...	...	4
Members	...	...	...	...	...	35
Student Members	...	...	...	...	...	1
Ticket Holders	...	...	...	...	...	7
						<hr/>
						47
						<hr/>

TOTAL MEMBERSHIP ON 31st DECEMBER, 1946.

Honorary Members	...	...	...	...	...	27
Members	...	...	...	...	...	352
Lady Subscribers	...	...	...	...	...	10
Associates	...	...	...	...	...	2
Student Members	...	...	...	...	...	1
Ticket Holders	...	...	...	...	...	30
						<hr/>
						422
						<hr/>

Dr.		THE YORKSHIRE PHILOSOPHICAL SOCIETY.						INCOME					
31st Dec., 1945.				EXPENDITURE.									
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.		
				To Salaries and Wages :									
1323	18	5	Museums	...	...	1602	5	10					
522	4	6	Lodge and Gardens	...	...	738	17	11					
300	0	0	Staff Pension	...	...	300	0	0					
32	0	0	National Health and Unemployment Insurance	...	...	46	18	10					
							<hr/>			2688	2	7	
<hr/>													
2178													
				To Maintenance of Properties and Land :									
73	0	8	Rates	...	...	77	2	6					
270	16	3	Heating, Lighting and Water	...	...	321	2	10					
21	15	11	Museums—Repairs	...	...	61	16	8					
				General Expenses :									
							£	s.	d.				
123	8	7	Museums	...	...	148	0	5					
80	15	2	Gardens	...	...	56	2	11					
2	17	6	Bowling Green	...	...	30	3	6					
59	3	8	Estate	...	...	37	2	5					
							<hr/>			271	9	3	
266	4	11											
<hr/>													
631										731	11	3	
				To Miscellaneous Expenses :									
113	12	8	Books, Printing and Stationery	...	...	128	12	1					
32	13	9	Insurance	...	...	64	8	6					
66	4	8	Telephone and Postages	...	...	55	2	7					
40	1	6	War Damage Contribution on Properties...	...	...	—	—	—			
							<hr/>			248	3	2	
<hr/>													
252													
				To Lectures and Exhibitions—									
70	14	9	Fees and Expenses	...	...				64	3	11		
				To Additions :									
							17	8	9				
							3	10	0				
31	14	8					<hr/>			20	18	9	
6	15	0											
				To Subscriptions Irrecoverable...									
										2	5	0	
				To Balance being Excess of Ordinary Income over Ordinary Expenditure for year, carried down									
914	13	9	...	...	...				298	10	11		

Dr.

INCOME AND EXPENDITURE ACCOUNTS

31st Dec., 1945.

EXPENDITURE.

Wm. REED

£	s.	d.		£	s.	d.
27	0	6	To New Books and Binding...	30	8	2
<u>£27 0 6</u>				<u>£30 8 2</u>		

H. J. WILKINSON

£	s.	d.		£	s.	d.
			To New Books	1	18	1
6	16	3	To Balance, being Income, carried to Balance Sheet	4	17	8
<u>£6 16 3</u>				<u>£6 15 9</u>		

SPECIFIC PURPOSES.

For the Year Ended 31st December, 1946.

Cr.

31st Dec., 1945.

INCOME.

BEQUEST.

£	s.	d.		£	s.	d.
23	3	8	By Interest on £579 12s. 5d. 4% Consolidated Stock (Gross) ...	23	3	8
0	8	9	By Bank Interest ...	0	8	9
3	8	1	By Balance, being Excess of Expenditure over Income, carried to Balance Sheet ...	6	15	9
£27 0 6				£30 8 2		

MEMORIAL FUND.

£	s.	d.		£	s.	d.
6	11	6	By Interest on £164 8s. 6d. 4% Consolidated Stock (Gross) ...	6	11	6
0	4	9	By Bank Interest ...	0	4	3
£6 16 3				£6 15 9		

THE YORKSHIRE PHILOSOPHICAL SOCIETY.

LIABILITIES.

31st Dec., 1945.

£ s. d.

Capital Account.

£ s. d.

£ s. d.

44508 0 7

Balance at 1st January, 1946 ... 44508 0 7

Add:—Profit on Sale of Investments ... 475 2 11

44983 3 6

77 12 6

Subscriptions paid in advance ... 71 17 9

315 14 7

Sundry Creditors ... 656 7 10

Income and Expenditure Account:

Balance at 1st January, 1946 ... 2049 6 3

Less:—Excess of Expenditure over Income
for the year ended 31st December,
1946 ... 728 1 11

2049 6 3

1321 4 4

£46950 13 11

Carried forward

£47032 13 5

BALANCE SHEET, AT 31st DECEMBER, 1946.

ASSETS.

31st Dec., 1945.

£ s. d. £ s. d.

£ s. d.

£ s. d.

Freehold Property and Land.

Museum Gardens.

32 and 34, Bootham (Tempest Anderson Bequest).

St. Mary's Lodge.

Baths Cottage, Marygate.

10 Bootham.

Not valued
for the
purposes
of this
Balance Sheet.

Investments (at cost).

TEMPEST ANDERSON BEQUEST.

10183	8	9	£10,271 1s. 8d. 3½% War Stock	...	...	10183	8	9
—	—	—	£2,500 York Corporation 2½% Loan	...	...	2500	0	0
—	—	—	£2,000 2½% Defence Bonds	...	...	2000	0	0
953	0	6	£900 Rotherham Corporation 5% Redeemable Stock, 1948-58	...	...	953	0	6
—	—	—	£8,000 Mortgage Ings Property Trust Company Ltd. 4%	...	...	8000	0	0
8131	9	0	{ £5,700 L. & N.E. Railway 4% 1st Prefce. Stock	...	...	8131	9	0
7967	11	0	{ £2,500 L. & N.E. Railway 4% 2nd Guar. Stock	...	...	7967	11	0
1434	16	6	£12,876 13s. 8d. 3% Treasury Stock	...	...	1434	16	6
1500	0	0	£1,200 Great Western Railway Co. 4% Debenture Stock	...	...	1500	0	0
—	—	—	£1,500 2½% National War Bonds 1951/53	...	...	1500	0	0
4039	4	0	Deposit York County Savings Bank...	...	...	617	13	5
634	12	0	£4,500 3% Local Loans	...	...	—	—	—
7968	14	6	£600 Birmingham Corporation 5% Redeemable Stock, 1946-56	...	...	—	—	—
			£8,000 New Zealand Govt. 4% Incrined Stock, 1943-63	...	...	—	—	—

RAWDON BEQUEST.

850	0	0	£850 2½% National War Bonds (1949-51)	850	0	0
-----	---	---	---------------------------------------	-----	-----	-----	---	---

ST. QUINTIN BEQUEST.

250	0	0	£247 11s. 2d. 3½% Conversion Stock	250	0	0
-----	---	---	------------------------------------	-----	-----	-----	---	---

WM. DOVE BEQUEST

500	0	0	£500 3% Defence Bonds	500	0	0
-----	---	---	-----------------------	-----	-----	-----	---	---

44412 16 3

Note—Market value at 31st December, 1946, £49,482 3s. 11d.

278 13 0

Sundry Debtors (including £237 1s. 0d. due from War Damage Commission for Repairs)

328 7 0

Suspense Account (Ellis Collection)—

Amount expended ... 500 0 0

Deduct:—Subscriptions received to date ... 228 5 9

280 0 0

271 14 3

Cash at Bank—

95	4	4	Midland Bank, Ltd. (Capital Account)	...	...	95	4	4
1105	13	4	Do. (Current Account)	...	...	314	3	2
778	7	0	York County Savings Bank	...	...	1135	5	6
1979	4	8				1544	13	0

£46950 13 11

Carried forward... ..

£47032 13 5

THE YORKSHIRE PHILOSOPHICAL SOCIETY.

LIABILITIES.

31st Dec., 1945.				LIABILITIES.										
£	s.	d.	£	s.	d.			£	s.	d.	£	s.	d.	
469	50	13	11	Brought forward		470	32	13	5

FUNDS FOR SPECIFIC PURPOSES.

WM. REED BEQUEST.

749	16	6	Balance at 1st January, 1946	...	...	...	746	8	5
				<i>Less :—</i> Excess of Expenditure over Income for					
				the year ended 31st December, 1946				6	15 9
746	8	5							739 12 8

H. J. WILKINSON MEMORIAL FUND.

236	9	4	Balance at 1st January, 1946	...	...	...	243	5	7
				<i>Add :—</i> Excess of Income over Expenditure for					
				the year ended 31st December, 1946				4	17 8
243	5	7							248 3 3

£47940 7 11	£48020 9 4
-------------	------------

REPORT OF THE AUDITOR TO THE MEMBERS OF

I have examined the foregoing Balance Sheet and Income and Expenditure Accounts with have verified the Cash Balances and Investments.
8, Coppergate, York.
28th March, 1947.

BALANCE SHEET, AT 31st DECEMBER, 1946—continued.

31st Dec. 1945.					ASSETS.						
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
469	50	13	11			Brought forward ...	...	...	...	...	47032 13 5

FUNDS FOR SPECIFIC PURPOSES.

WM. REED BEQUEST.

650	0	0	£579 12s. 5d. 4% Consolidated Stock (at cost)	650	0	0	
Note:—Market Value at 31st December, 1946, £672 7s. 2d.							
			96	8	5	Cash at Midland Bank, Ltd.	...
					
					
						89	12
						8	
746	8	5					
</							

H. J. WILKINSON MEMORIAL FUND.

185	0	0	£164 8s. 6d. 4% Consolidated Stock (at cost)	185	0	0			
Note.—Market Value at 31st December, 1946, £190 14s. 8d.									
			58 5 7	Cash at Midland Bank, Ltd.	...	...	...	63 3 3	
243	5	7	<hr/>					<hr/>	248 3 3

47940 7 11

£48020 9 4

THE YORKSHIRE PHILOSOPHICAL SOCIETY

the Books and Vouchers of the Society, and certify the same to be in accordance therewith. I

H. L. CREER,
Chartered Accountant.

FORM

OF A

BEQUEST TO THE SOCIETY.

Every person desirous of bequeathing to the Society any sum of Money, Specimens, Books, Instruments, or other Property, is requested to make use of the following form:—

*I give and bequeath to the Trustees, for the time being, of the Society established at York, called “**The Yorkshire Philosophical Society,**” for the use of the said Society, the sum of _____ to be paid out of such part of my personal estate as I may legally charge therewith. [Or here enumerate the effects or property intended to be bequeathed.] And I direct that the receipt of the Treasurer of the said Society, for the time being, shall be an effectual discharge to my Executors for the said legacy*

TRANSACTIONS
OF THE
YORKSHIRE PHILOSOPHICAL SOCIETY,
1946-47.

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DEPARTMENTAL REPORTS.

ARCHAEOLOGY.—Archaeologist: Mr. Dudley Waterman.

The period covered by this report commences November, 1946, when the decision to create a separate department to deal with the archaeological collections was put into effect by the appointment of a resident archaeologist, and admits work undertaken during the following five months.

The first task was obviously an assessment and preliminary sifting of the relevant material—no light undertaking, in view of the vast accessions made in over a hundred years of the Museum's existence—and the commencing of a long overdue card-index, this last an undertaking that will require a considerable time to complete. It was evident that much material, some of considerable importance, previously shown in the public galleries, would have to be removed into storage to relieve the congestion of the display cases, but to remain accessible for the use of students. Hence accommodation for these reserve collections was made by converting a basement room to serve as a combined storage and study-room, with adequate shelving and drawer-space to provide for future accessions.

The housing of the archaeological material was planned as follows: the Roman collections to be accommodated in the Hospitium, and the prehistoric and post-Roman collections in the old Ethnological Gallery on the first floor of the main building. Since a chronological sequence of display is intended, the isolation of the Roman material is a disadvantage, but its bulk makes such

an expedient unavoidable. The rearrangement of the Hospitium was first commenced, and although much of the material still remained in its war-time packing, this task was considerably lightened by the preliminary work previously undertaken by Mr. I. A. Richmond. A temporary arrangement was completed by the end of 1946, when the absence of lighting and adequate heating facilities made further work impossible. As a result the Hospitium will be made available to visitors during the summer months.

It should be emphasised that the arrangement will be only temporary, and intended to avoid the complete non-representation of the archaeological collections that would otherwise occur. For the necessary alterations in the proposed archaeological gallery in the main building—the old Ethnological Room—will take considerable time to complete, as is obvious when any extensive reorganisation is contemplated. Yet even here good progress can be reported. For a start, the whole room was stripped of exhibits, much of which consisted of folk material that has, as already indicated, found a new home at the Castle Museum. The decorations followed, with some structural alterations necessary for the proposed layout of the gallery, including an office and workroom for the staff of the department, and the existing wall cases altered to provide for a more adequate presentation of the exhibits. Many of the old cases, however, were considered quite unsuitable for retention, and removed, and a new run of metal show-cases ordered in their stead from Messrs. A. Edmonds and Co., of Birmingham. Material restrictions are at present delaying their delivery, but, apart from their installation, the new archaeological gallery may be said to be complete as far as display facilities are concerned. The arrangement of the material, however, is a different matter, for a considerable amount of preparatory cleaning and preservation work in the laboratory is a first essential. However, the permanent arrangement of a third of the existing wall-cases has already been completed, and here again progress would have been greater had the supply of materials necessary for the alterations been easily obtainable.

At present, work on the permanent display has been suspended in favour of a temporary exhibition intended to illustrate the subject of a Conference to be held at the Museum from 5th to 8th September. This conference is to be held under the auspices of the Prehistoric Society, the Yorkshire Archaeological Society, and the Yorkshire Philosophical Society, together with other bodies, has as its subject the Neolithic and Early Bronze Age in the North of England, and will include lectures, and excursions to places of relevant interest. With comparatively little work, the unrepresented collections now in the Museum (Iron Age, Anglian, Viking and Medieval) can be subsequently included, and it is intended that the archaeological gallery shall be available to the public before the end of the year. Here again the final arrangement will be delayed, but work to this end can be conveniently undertaken, even while a temporary display is offered to visitors.

It will be noticed that no mention has been made of the Museum of Mediaeval Architecture, and no work can be considered until considerable storage space has been made available. Here overcrowding is at its worst, and much of lesser value must be removed before any fresh arrangement can be undertaken.

Among other improvements may be mentioned the removal of all relevant literature from the library to more accessible accommodation in the office

of the department ; the building up of a modern reference library is essential if the department is to fulfil its duties adequately. Other activities include the inspection and recording of finds of archaeological interest made not only in the rich soil of York, but also beyond its boundaries; and in this matter the kind co-operation of the City Engineer (Mr. C. Minter) has proved of great help. Another item deserving mention is the inauguration of archaeological fieldwork sponsored by the Museum, and a nucleus of excavation equipment has already been provided. The staff, rather naturally, has been too heavily engaged in putting its own house in order to undertake at present any fresh commitments on a large scale; but, with such future work in mind, a trial excavation has been made, with the help of boys of Bootham School, on Bishophill, in the area of the Roman "colonia," or civil site. Work of this nature is essential if the Yorkshire Museum is to maintain the high quality of research for which it is justly famed in other departments.

The grateful thanks of the Keeper and Archaeologist are due to Mr. Michael W. Broomhall and Mr. Geoffrey Watson for their unstinted help over a long period.

SILVER PLATE AND PEWTER.—Honorary Curator, Mr. Geoffrey Thompson, M.A.

The Society's collection of Silver Plate is now chronologically arranged, with a short historical note, and contains over 50 pieces, being mainly the "Arthur Hurst Collection of Yorkshire Silver Plate." These are almost entirely York (and a few Leeds and Hull) pieces, namely, spoons, beakers, cups and tumbler-cups from 1600 to 1717, and tea-pots, tea-caddies of the later York period from 1776 to 1856. With these are grouped a few other pieces, including a London Posset-Cup and Cover of 1685 and a Mazer Bowl of 1679. A generous gift from Mr. and Mrs. Brogden has helped to show a more complete sequence of design between 1717 and 1776 (the period when York Assay Office was closed) by the addition of other pieces of London and Newcastle marks. It is hoped that it may be possible in the future to add further Yorkshire types not yet represented in this collection.

The Pewter collection includes a number of pieces not previously exhibited, with a short explanatory note, and the intention is to show pewter-development by means of Yorkshire pieces where possible. This newly-arranged case contains a "Coffin Chalice" and Paten of about 1300 found in York excavations, an Almsdish (1675), a Christening-bowl (1720), Chalice (18th century) and two pairs of early 18th century Communion Flagons of the rare type associated with York. (Also two small Limoges enamel panels of the 13th century, and two enamel Pricket Altar Candlesticks of the 14th century.)

The series of Chargers and Plates has received welcome additions by a bequest from Mrs. Williams, of Hutton Rudby, and by gifts from Mr. J. B. Morrell. It is chronologically arranged, and contains York, Darlington, Newcastle and London specimens from the early 17th century to the end of the 18th century, including early wide-rimmed types and Stuart "wriggled" decoration.

The Measures and Tankards include two early "Wedge" type English Baluster Measures of the early 17th century.

The series of pewter and laton spoons begins with two early 15th century laton spoons with leaf-shaped bowls, and a good specimen of the rare pewter

“Horned Head-dress” type of about 1420, and includes various other knops (Acorn, Strawberry, Seal, Baluster, “Slipped in the Stalk,” Puritan and Trifid). A few are of foreign make, including an interesting little spoon of Danish origin with triangular stem and knop of St. Anne with Virgin and Child.

York Pewterers’ Guild was founded 1419, the second oldest in the country, the only older Guild was London, founded some 70 years earlier. It was an important centre of the craft, as a very large proportion of pewter was made at London, York or Bristol.

COINS AND MEDALS.—Honorary Curators, Mr. J. F. E. Gelson-Walker, M.A., and Mr. Geoffrey Thompson, M.A.

During the year the outstanding event was the gift of silver and copper coins and tokens by Colonel F. Seeböhm. Mr. Geoffrey Thompson gave several tokens, and among the presentations by Mr. Gelson-Walker was a complete set (as described by Dalton) of York nineteenth century shilling and sixpenny tokens issued by Cattle and Barber.

The proposal to show series of coins and medals in the Central Hall from time to time is now taking shape. A number of routine determinations of coins and tokens has been made by the honorary curators in the course of the year.

VERTEBRATE ZOOLOGY.—Honorary Curator, Mr. E. Wilfred Taylor, C.B.E.,
M.B.O.U.

Following the reconstruction of the wall-cases on the west side of the Vertebrate Gallery, it became possible to insert and arrange the material which had been prepared on the premises in readiness, and these cases now embrace all the British Mammals with the exception of the Ungulata and Cetacea. All the exhibits are mounted on a simple background suggestive of the normal habitat of the species, and they are supported by drawings of structural details, colourful distribution maps, and comprehensive labels giving details of life-history and habits. The whole may be said to form a pictorial text-book of the Mammalian fauna of Great Britain, in which the staff has striven to provide an aesthetically pleasing and easily understood presentation of the material, without sacrificing scientific order or accuracy.

The specimens are linked to a fine series of photographs of the smaller British Mammals, taken from life by the late Mr. A. R. Thompson and Mr. Eric J. Hosking, and which is proving a popular feature of the display. The Keeper and Honorary Curator are grateful to Mr. Hosking for the gift of these photographs, to Mr. Oates, of York, for help in preparing the cases, and to Mr. Adam Gordon, of Helmsley, for supplying a number of mounted specimens for exhibition and reserve.

Arrangements have been made for the removal from the middle of the gallery of the large Mineral Case, and the fine skeleton of the extinct Irish Elk will be installed as centre-piece. During the coming year it is hoped to proceed with the modification of the remaining wall-cases, and scale models of the British whales and other appropriate material are being prepared in anticipation of the early completion of this task.

The Collection of Bird Skins. Continuous progress has been made with the re-arrangement of the large and growing collection, and some five hundred specimens have been individually examined, determined and re-labelled in the course of the year.

The severe and prolonged winter of 1946-47 caused unusual bird-mortality, and a large number of specimens was received from this source. These were further augmented through the arrangements made with the British Trust for Ornithology (see "Study Material Service"), and by means of specimens sent in from Spurn Lighthouse during the autumn migration season. All suitable specimens have been prepared as skins, and they represent an invaluable contribution to our study collection. It is not possible within the confines of this report to acknowledge each of these accessions individually; a list of the more interesting and important additions is appended hereunder, and the Keeper and Honorary Curator are grateful to all those members of the Trust and other friends of the museum who have helped.

Among the more important acquisitions must be mentioned a large collection of some 500 birds (mainly passerine, and including useful series of some of the more critical species) which was obtained through the kind offices of Mr. Hubert Barrow, of Queniborough, near Leicester. Hr. Niels á Botni, of the Faeroe Islands, has sent excellent series of the named insular races of Raven, Starling, Snipe and Guillemot, as well as series of Hooded Crow, Oystercatcher, Whimbrel, Arctic Skua and other species. His birds also include the first Faeroese examples of Continental Twite, Hornemann's Redpoll and Siberian Stonechat—the last an extremely rare vagrant to western Europe. Whilst on holiday in the Isle of Man the Keeper collected a number of Yellowhammers, Rock Pipits, Cole and Long-tailed Tits and other Passeres for scientific examination and comparison with mainland forms, and additional material has arrived from this area as the gift of Mr. H. M. Rogers, M.B.E., and Mr. H. Rogers, junr. Other skins were obtained from Mr. W. F. H. Rosenberg during the year in exchange for foreign material outside the purview of our collection, which is restricted to the Palaearctic region.

The Collection of Mammal Skins. The most notable additions to the Mammal collection have been two Islay Stoats, sent by Mr. Ian Fraser, and a fine series of skins of the Orkney Vole, presented by Mr. Hewson. Our thanks are due to Mr. Fraser, Mr. James Bartholomew, of Torrance, near Glasgow, and Mr. Adam Gordon, of Helmsley, Yorkshire, for sustained help throughout the year.

The new laboratory will greatly facilitate the preparation of exhibits for this and other sections of the museum. It is one of the finest of its kind in the country and lacks only a few items of equipment, which it is hoped it will be possible to obtain in the very near future.

APPENDIX.

Some Additions to the Bird Collection, 1946-47.

RAVEN.—Five specimens of *Corvus corax varius* Brünn. from the Faeroe Islands (Hr. Niels á Botni).

CARRION CROW.—Specimens from Glasgow (Mr. J. Bartholomew) and Yorkshire (Mr. T. Tynan). Also *Corvus corone x cornix* hybrids, Isle of Mull (Col. Peter Norwell).

- HOODED CROW.—Specimens from Ireland (Major R. F. and Mr. William Ruttledge, and Mr. A. W. Stelfox), Isle of Man (Messrs. H. M. Rogers, senr. and junr.), Hebrides (Mr. Ian Fraser and Col. Norwell), and Faeroe Islands (Hr. Niels á Botni).
- JACKDAW.—A long series of British birds from Helmsley (Mr. A. Gordon), and six Continental Jackdaws from Sweden (Riksmuseum, Stockholm, by exchange).
- JAY.—First Yorkshire example of Continental Jay (Mr. W. G. Bramley); Irish Jays (Mr. H. Barrow).
- STARLING.—Long series of autumn migrants from Spurn Lighthouse (Messrs. R. Anderson and H. O. Bunce); also series of *Sturnus vulgaris faroensis* Feilden (Hr. Niels á Botni and Mr. K. Williamson).
- MEALY REDPOLL.—Yorkshire specimens (Mr. A. Gordon).
- WAXWING.—Yorkshire specimens (Mr. Charles Proctor and Mr. R. M. Garnett).
- WRYNECK.—Cloughton, Yorks., 23.iv.1947, an interesting county record (H. M. Wallis).
- NIGHTJAR.—Lincolnshire, 6.x.1946, juv., a late date (M. C. Wainwright).
- BARN OWL.—Several specimens, victims of the hard winter (Messrs. G. and W. G. Bramley and H. M. Rogers).
- LONG-EARED OWL.—Yorkshire (Mr. Bryan Dale).
- SHORT-EARED OWL.—On the Swedish M.V. "Nordia," in Pentland Firth, 29.ix.1946 (Mr. G. H. Ainsworth).
- TAWNY OWL.—Anglesey (Mr. T. G. Walker), Cheshire (Mr. F. E. Dodman).
- MARSH HARRIER.—Wirral, Cheshire (Miss Mary Henderson, per Major A. W. Boyd).
- HEN HARRIER.—Islay (Mr. Ian Fraser).
- BUZZARD.—Islay (Mr. Ian Fraser).
- SPARROW-HAWK.—Ireland (Major R. F. Ruttledge), Glasgow (Mr. J. Bartholomew).
- PEREGRINE FALCON.—Islay (Mr. Ian Fraser), Wirral, Cheshire (Miss M. Henderson).
- GANNET.—Scarborough (Mr. H. M. Wallis, per Mr. R. M. Garnett).
- WHITE-FRONTED GOOSE.—Ringwood, Hants. (Mr. H. Barrow), head of immature bird in spirit (H. O. Bunce).
- PINK-FOOTED GOOSE.—Solway (Mr. R. A. H. Coombes).
- BEWICK'S SWAN.—Heads received from Galway and Isle of Man (Major R. F. Ruttledge and Mr. W. S. Cowin).
- MUTE SWAN.—Cheshire (Major A. W. Boyd).
- MALLARD.—Drake, Leven Carr (Mr. H. O. Bunce).
- SHOVELER.—Leicestershire (Mr. H. Barrow).
- FAEROE EIDER.—Faeroe Islands (Hr. Niels á Botni).
- SMEW.—Wakefield (Mr. A. G. Parsons).
- COMMON SCOTER.—Wakefield (Mr. A. G. Parsons).
- GOOSANDER.—Solway (Mr. R. A. H. Coombes).
- HERON.—Yorkshire (Miss R. Brooke), York (*Evening Press*).
- BITTERN.—Yorkshire (Mr. A. W. Ping), Cheshire (Mr. W. G. Harrison, per Major A. W. Boyd).
- WATER RAIL.—Islay (Mr. Ian Fraser), Ireland (Major R. F. Ruttledge).
- MOORHEN.—Yorkshire (Messrs. W. H. Barrett and J. B. Fay), E. Lothian (Mr. H. F. D. Elder).
- COOT.—Hull, Yorks. (Mr. Charles C. Proctor).

CURLEW SANDPIPER.—In the “ red ” plumage (Mr. W. H. Barrow).

BAR-TAILED GODWIT.—Solway (Mr. R. A. H. Coombes).

FAEROE SNIPE.—A series of 12 specimens (Hr. Niels á Botni).

HERRING GULL.—Tórrance (Mr. J. Bartholomew), Bridlington (Miss Eva Crackles).

GREATER BLACK-BACKED GULL.—Torrance (Mr. J. Bartholomew).

LESSER BLACK-BACKED GULL.—Shetland (Mr. W. H. Barrow).

ROSS'S GULL.—Anadyr Bay, Siberia (Mr. W. F. H. Rosenberg, by exchange).

This is an exceedingly rare bird in collections, and the museum is indeed fortunate in possessing this example, which is in full summer plumage.

ARCTIC TERN.—Faeroe Islands (Hr. Niels á Botni).

BLACK GUILLEMOT.—Shetland (Mr. W. H. Barrow).

PUFFIN.—Faeroe Islands (Hr. Niels á Botni).

LITTLE AUK.—Scarborough, Yorks. (Mr. H. M. Wallis).

SOOTY AND GREAT SHEARWATERS.—Faeroe Islands (Hr. Niels á Botni).

RED-THROATED DIVER.—Broomfleet (Mr. H. O. Bunce).

TURTLE DOVE.—Yorkshire (Mr. Adam Gordon).

ENTOMOLOGY.—Honorary Curator, Mr. W. D. Hincks, M.P.S., F.R.E.S.

In the absence of the honorary curator, who has been engaged on work outside the museum, Dr. J. H. Fidler, of York, has performed a valuable service in labelling the various Coleoptera collections, so that during the year ahead they may be merged with the Ellis collection. It is felt that in view of the vast amount of material involved (some two hundred thousand specimens) it is quite impracticable for economic storage and reference purposes to maintain each of the half-dozen collections as a separate entity. Incorporation with the large Ellis collection does not imply, however, that other specimens will lose their identities, as the system of labelling will ensure that the origin of each is known.

BOTANY.—Honorary Curator, Mr. Charles Allen.

This year has witnessed the greatest and most important single accession to the Botanical Department since its inception a hundred years ago—namely, the gift of the Albert Wilson Herbarium of flowering plants, mosses, hepatics and liverworts. Mr. Albert Wilson, the donor, is a botanist of high standing, the author of *The Flora of Westmorland*, and part-author with the late J. A. Wheldon of *The Flora of West Lancashire*. The extent and quality of the collection may be judged by the fact that it embraces, in addition to the results of Mr. Wilson's personal collecting in all parts of Britain, a considerable amount of material which he obtained through the various Botanical Exchange Clubs and from his many friends.

The flowering plants contain numerous specimens in many of the more critical groups, such as *Euphrasia*, *Rubus*, *Hieracium* and *Viola*. As was stated in the 1945 Transactions, these constituted some of our weakest genera; now, however, *Euphrasia* and *Hieracium* in particular are very strongly represented. The mosses and hepatics, when added to the splendid collections already possessed by the museum, will make our collection one of the most representative in the country. Botanists everywhere, and in particular Yorkshire botanists, should be extremely grateful to Mr. Wilson for his public-spirited action in

placing the fruits of a life-time's labour in hands that will ensure their proper care and their availability at all times to students of the British flora.

This magnificent collection has come into our possession at a time when Mr. A. A. Dallman has almost completed his preliminary examination and re-systematising of the Wilkinson and other Herbaria. The task now before him is a formidable one: the work of accessioning, however, will be lightened by the existence of Mr. Wilson's most carefully maintained catalogue, and by the provision of special boxes which have been made to house the ten thousand or so specimens on the shelves prepared for their reception in the Keeper's Room. The installation of the Botanical Department in this portion of the building would not have been possible without the co-operation of Mr. Geoffrey Watson, who prepared the room for its new purpose.

During the summer months the Botanical Department is one of the most active in the museum. Every year sees a manyfold increase in the number of routine determinations, not a few of which lead to the establishment of interesting records in *The North-western Naturalist* and other journals. The Keeper and the Honorary Curator are grateful to Mr. Dallman for his expert work in connection with the collections, which he reports to be in excellent condition; they are also indebted to Mr. W. G. Bramley for further gifts of seeds—which have already proved of value in the determination of food of birds,—to Mr. K. G. Payne for undertaking a preliminary survey and catalogue of the mosses, and to Messrs. T. Thurgood and K. G. Payne for their help in mounting herbarium material. Among small accessions of note must be mentioned a series of Scottish Alpines and a number of interesting Cornish plants presented by Mr. W. Ramsden, of Manchester.

METEOROLOGY.—Honorary Curator, Mr. A. Wentworth Ping, M.A.,
F.R.Met.Soc.

Recorder, Mr. A. Colley.

Statistics of Station: Longitude, $1^{\circ} 5' W.$; Latitude, $53^{\circ} 57' N.$; height above mean sea level, 56 feet.

Rainfall. Rain or snow fell to the amount of 29.78 inches as against 22.08 inches for 1945, an increase of 7.70 inches, and 5.48 inches above the average of 24.30 inches for the preceding 50 years. The wettest months of the year were November 5.39 inches, September 4.28 inches and August 3.54 inches. The driest months were October 0.66 inches, March 0.89 inches and May 1.65 inches. The heaviest fall of the year occurred on 19th September when 1.09 inches fell.

Temperature. Temperature ranged from $82^{\circ}F.$ on 12th and 13th July to $20^{\circ}F.$ on 16th January; the range of temperature for 1946 being thus $62^{\circ}F.$ as against $74^{\circ}F.$ for 1945.

The mean temperature for the year (mean of max. and min.) was $49.5^{\circ}F.$ as against $50.7^{\circ}F.$ for 1945. July gave the highest mean with 62.1° , then August with 58.9° . January and December were the lowest with 37.5° and 38.3° respectively.

Barometer. A mean pressure of 1014.4 millibars (29.95 inches) (1000 millibars= 29.531 inches of mercury) at M.S.L. (corrected for diurnal variations) has been recorded, as against 1015.8 millibars (30.00 inches) for 1945. November gave the lowest mean for the year 1006.4 millibars (29.72 inches).

October was highest, 1021.2 millibars (30.16 inches). The highest reading of the barometer was taken on 15th January 1046.8 millibars (30.910 inches), and the lowest on 18th November 980.7 millibars (28.965 inches), all readings corrected to M.S.L. The extreme range was therefore 66.1 millibars (1.945 inches) as compared with 72.5 millibars (2.147 inches) in 1945.

Winds. Observations of winds show that during 1946 we had "strong" winds on 97 days (force 4-7 Beaufort Scale) as against 60 in 1945. The winds observed at 9 a.m., G.M.T., were S. on 77 days, W. 61 ; N.W. 57 ; S.W. 44 ; S.E. 42 ; N.E. 37 ; N. 33 ; and E. 14.

Thunder, Snow and Hail. Thunder was heard on 11 days as against 22 days in 1945 ; snow or sleet fell on 11 days as against 13 days, and hail was recorded on 5 days as against 6 days the previous year.

Sunshine. Sunshine, recorded at Bootham School, amounted to 1365.0 hours as against 1293.8 hours in 1945, an increase of 71.2 hours for the year. The daily mean was 3.74 hours, and the percentage of possible sunshine 31 as against 29 in 1945. The sunniest month of the year was May with 210.9 hours, followed by 181.5 hours in June. January and November were lowest with 19.9 and 32.0 hours respectively.

STUDY MATERIAL SERVICE.

First Report, Spring, 1947.

Since its inception in October, 1946, the Study Material Service has been used by several keen students for a variety of purposes, and it already has a number of good friends who regularly send in such bird-casualties as they find. During the five months in which the Service has operated ten applications for the loan of specimens have been dealt with, and in addition one or two members of the British Trust for Ornithology have examined material in the museum.

The first to ask for assistance under the scheme was Major R. F. Rutledge, of Ballinrobe, Co. Mayo, who required examples of Continental Goldcrest and Iceland Redwing in order to further his researches into the status of migrant birds killed at the Irish lighthouses, and as a result of the latter investigation a joint paper on the field and museum characteristics of the two races of Redwing occurring in Britain is being prepared by Major Rutledge, the Keeper and Mr. Williamson. Confirmation of a record of the Siberian Chiffchaff, the second for Ireland, and a report on the affinities of some Golden Plovers were also supplied.

A series of Grey and Red-necked Phalaropes was sent to Mr. R. F. Moore, of Ilfracombe, who is interested in the plumage sequences ; and in January a series of 30 Corsican birds was supplied to Mr. E. H. Cohen for use in a lecture given to the Bournemouth Natural Science Society. Such "hardy annuals" as the Marsh and Willow-Tits and the *alba* wagtails, and also a series of Starlings to show plumage changes from juvenile to adult phases, have also been out on loan. All these students have found the Study Material Service of considerable value, and there is no doubt that it is serving a useful educational end.

So far all requests have been met, largely from the material available at the Yorkshire Museum, but also by means of specimens very kindly lent to

the Service by Dr. James M. Harrison, M.R.C.S., from his private collection, and by the Manchester Museum (the Dresser collection) through the kind co-operation of the Director, Mr. R. U. Sayce, and the Keeper of Zoology, Dr. P. M. Butler.

Bird-watchers all over the country have sent in specimens as a result of the appeal in the British Trust for Ornithology Bulletin No. 21 that bird "casualties" should be made use of in this way. In all, some 50 or 60 specimens in addition to many more received from our own sources, and which would not otherwise have been saved for scientific purposes, have been added to the material available under the Service. These include many victims of the severe wintry weather of February and March, 1947, a number of them showing phases of plumage not previously represented in the collection (Plate III).

APPENDIX.

The following is a bibliography of the notes and papers published by the staff, or by students working at the museum, during the course of the year.

- BROWN, SIR CHARLES R. "Black-headed Bunting in Scotland," *North-Western Naturalist*, **21**, 100 (1946).
- DALLMAN, A. A. "*Primula scotica* Hook," *N.W. Nat.*, **20**, 272 (1945).
- DALLMAN, A. A. "Altitudinal Range of *Anemone nemorosa* L.," *N.W. Nat.*, **20**, 272-3 (1945).
- *DALLMAN, A. A. "Alien Plants in Britain, 1," *N.W. Nat.*, **21**, 37-43, pls. 3-4 (1946). Price 6d.
- HARRIS, TOM M. "Notes on the Jurassic Flora of Yorkshire," *Annals and Magazine of Natural History*, 11th series, **12-13** (1945-46).
- *MELMORE, S. "Catalogue of Types and Figured Specimens in the Geological Department of the Yorkshire Museum," *N.W. Nat.*, **20**, 207-221 and **21**, 72-91 (1945-46). Price 1s.
- RUTTER, E. M. "Nesting of Wood-lark in North Yorkshire," *British Birds*, **39**, 85-86 (1946).
- *WAGSTAFFE, REGINALD, AND WILLIAMSON, KENNETH. "A Re-examination of the British Record of *Emberiza cioides* Brandt," *N.W. Nat.*, **22**, (1947). Price 6d.
- *WAGSTAFFE, REGINALD; WILLIAMSON, KENNETH, AND BROUGHTON, R. H. "The Invalidity of some early records of Brunnich's Guillemot in Britain," *N.W. Nat.*, **21**, 20-26, pls. 1-2 (1946). Price 6d.
- WATERMAN, DUDLEY. "An Italian Brooch from Bitterne," *Proc. Hampshire Field Club*, 1945.
- *WILLIAMSON, KENNETH. "The Economic and Ethnological Importance of the Caaing Whale, *Globicephala melaena* Traill, in the Faeroe Islands," *N.W. Nat.*, **20**, 118-136, pls. 7-9 (1945). Price 6d.
- WILLIAMSON, KENNETH. "Late Blackcaps in the Faeroe Islands," *N.W. Nat.*, **20**, 66-67 (1946).
- WILLIAMSON, KENNETH. "Birds in Faeroe Folk-lore," *N.W. Nat.*, **21**, 7-19 (1946).
- *WILLIAMSON, KENNETH. "Horizontal Water-mills of the Faeroe Islands," *Antiquity*, **20**, 83-91, pl. (1946). Price 3d.
- WILLIAMSON, KENNETH. "The West-coast Movements of the Black Redstart," *The Peregrine*, **4**, 1-5 (1947).

*WILLIAMSON, KENNETH, AND WAGSTAFFE, REGINALD. "Dangers to the Future of Ornithology," *The Field*, January 6th, 1946. Price 1d.

* Copies of these papers are available at the price stated, on application to the Keeper, the Yorkshire Museum, York.

YORK AND DISTRICT FIELD NATURALISTS' SECTION.

REPORT FOR THE YEAR 1946-47.

The Field Naturalists' Section, as in other recent years, devoted its summer programme solely to outdoor meetings and its winter programme to indoor lectures and demonstrations. All the winter meetings were held in the Yorkshire Museum.

Nine field meetings were held, from the first at Askham Bog on 8th May, to the Annual Fungus Foray at Castle Howard on 29th September. The final meeting was probably the most successful, and members were able to see some interesting species of fungi, including the fine agaric *Armillaria mucida* growing on beeches in the park. On this occasion, transport by motor coach was used for the first time since the war. The Whit-Sunday meeting at Pickering was very successful from the point of view of the lepidopterists.

The winter programme was opened by Mr. A. A. Dallman's well-illustrated lecture, "Life of the Sand-Dunes," an account of the flora and fauna of the extensive sandhills of the Lancashire coast. It was well attended by members and was open to the general public. The President once again chose a subject of general appeal for his address, and spoke on "Some Aspects of Water." The lantern slides, illustrating meteorological matters, streams, floods, etc., had a flavour of the open air and were also extremely topical.

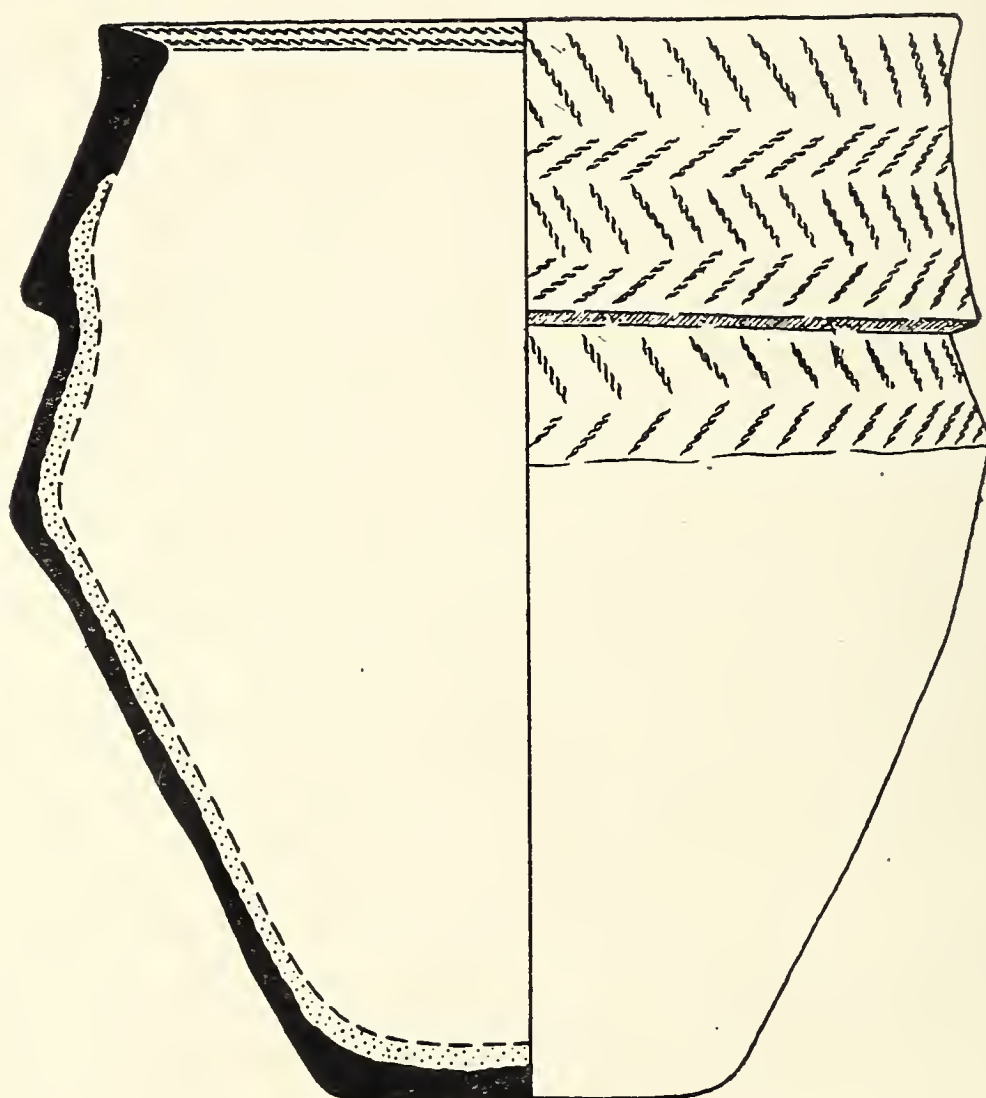
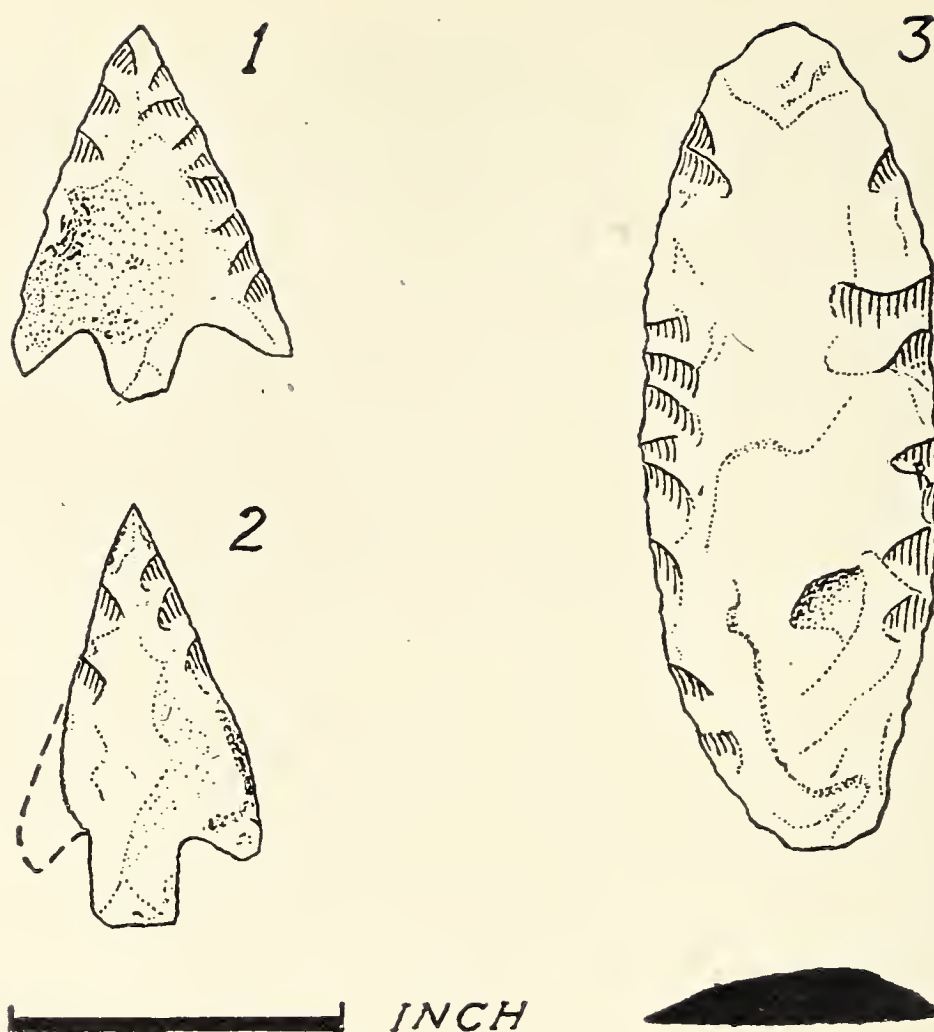
During the winter and spring there were sixteen meetings devoted to lectures and demonstrations. Those of a more specialist nature were distributed among the various branches of natural history as follows: Botany, 3; Conchology and Freshwater Biology, 1; Entomology, 1; Geology, 1; Microscopy, 1; Vertebrate Zoology, 3. Thanks are again due to the Keeper of the Museum for his great help and interest in the welfare of the section. This has been especially evident in the frequent exhibition of material from the museum collections, and in his placing other facilities of the Museum at our disposal.

Turning now from the meetings to the Section itself, the present state of membership is perhaps best given as a comparison with the two previous years.

	1946-47	1945-46	1944-45
Honorary Members ...	9	7	8
Ordinary Members ...	117	106	93
Student Members ...	26	29	23
Corresponding Members	7	7	7

For the second year in succession Mr. A. W. Ping held office as President of the Section. These two years followed many years of almost uninterrupted service as Honorary Secretary, and the Section is deeply indebted to him for the tremendous amount of work he has done on its behalf over this long period.

The following were the localities visited on the summer excursions: Askham Bog, Skipwith Common, Fairburn Ings, Pickering, Strensall Brickyard,



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CMS.

BRONZE AGE URN
WITH ASSOCIATED FLINTS FROM TROUTSDALE, N.R. YORKS.

Allerthorpe Common, The Hermitage, Castle Howard Park. The lecturers and their subjects during the winter were as follows :

- " Life of the Sand-Dunes." A. A. Dallman, A.L.S., F.C.S.
- " General Exhibits and Notes." Members.
- " Fungi." W. G. Bramley.
- " Lecturettes." Members.
- " Some Aspects of Water." A. W. Ping, M.A., F.R.Met.Soc.
- " The Future Development of the Yorkshire Museum." R. Wagstaffe.
- " Conchology and Freshwater Biology." C. F. Sweetman and C. Allen.
- " A Survey of Stoats and Weasels." R. Wagstaffe and W. G. Bramley.
- " A Survey of Wagtails and Pipits." R. Wagstaffe and F. Jefferson.
- " An Afternoon's Entomology." A. Smith.
- " A Naturalist in the Faeroes." K. Williamson.
- " A Talk on some British Finches." F. Jefferson.
- " Botanical Evening." K. G. Payne.
- " The River Terraces of the Derwent and Ouse." S. Melmore, B.Sc.
- " Moorland Bogs and Swamps." The Rev. A. D. Webb.
- " Phase Contrast Microscope." E. W. Taylor, C.B.E., F.R.A.S., F.R.M.S.

KENNETH PAYNE, *Hon. Secretary.*

A BRONZE AGE URN

WITH ASSOCIATED FLINTS FROM TROUTSDALE, N.R. YORKS.

The chronological position of certain types of flint implements is still uncertain, despite recent work on specialised forms, and the impossibility of closely dating the majority of chance finds is well known. Hence the record of association that forms the subject of this note deserves mention.

Amongst the material of the Kendall Collection in the Yorkshire Museum, is an overhanging rim urn from Troutsdale, on the southern edge of Blackamore, in the North Riding, together with three artifacts stated to have been found in it. No remains of the burial have been preserved, but from the semi-calcined condition of the flints, this must have been by cremation. The urn is of the usual drab buff-brown paste with well-marked collar and shoulder, and internally bevelled rim. The collar and hollow neck bear oblique cord impressions, alternating to form a herring-bone pattern, and on the internal bevel are two corded lines.

The flints, all of which show signs of burning, comprise a well made plano-convex knife, 2.5 in. long, and two barbed and tanged arrowheads, one roughly triangular in shape with tang slightly longer than the barbs, the other, lacking one barb, of more slender form, with pronounced tang. The association of the plano-convex knife with a cinerary urn provides additional evidence for the persistence of this type into the Middle Bronze Age (*Antiq. Journ.* xii, 160) ; while the arrowheads illustrate the tendency to exaggerate the tang at the expense of the barbs, as originally pointed out by R. A. Smith (*Archaeologia*, lxxvi, 105).

At the same time, it should be recognised that only a regional significance can be attributed to this association, since the persistence of the Urn culture

in the N.E. Moorlands, and the striking scarcity of metal types meant, as Elgee has pointed out (*Early Man in N.E. Yorkshire*, p. 97-8), the long continuance in use of flint in this area.

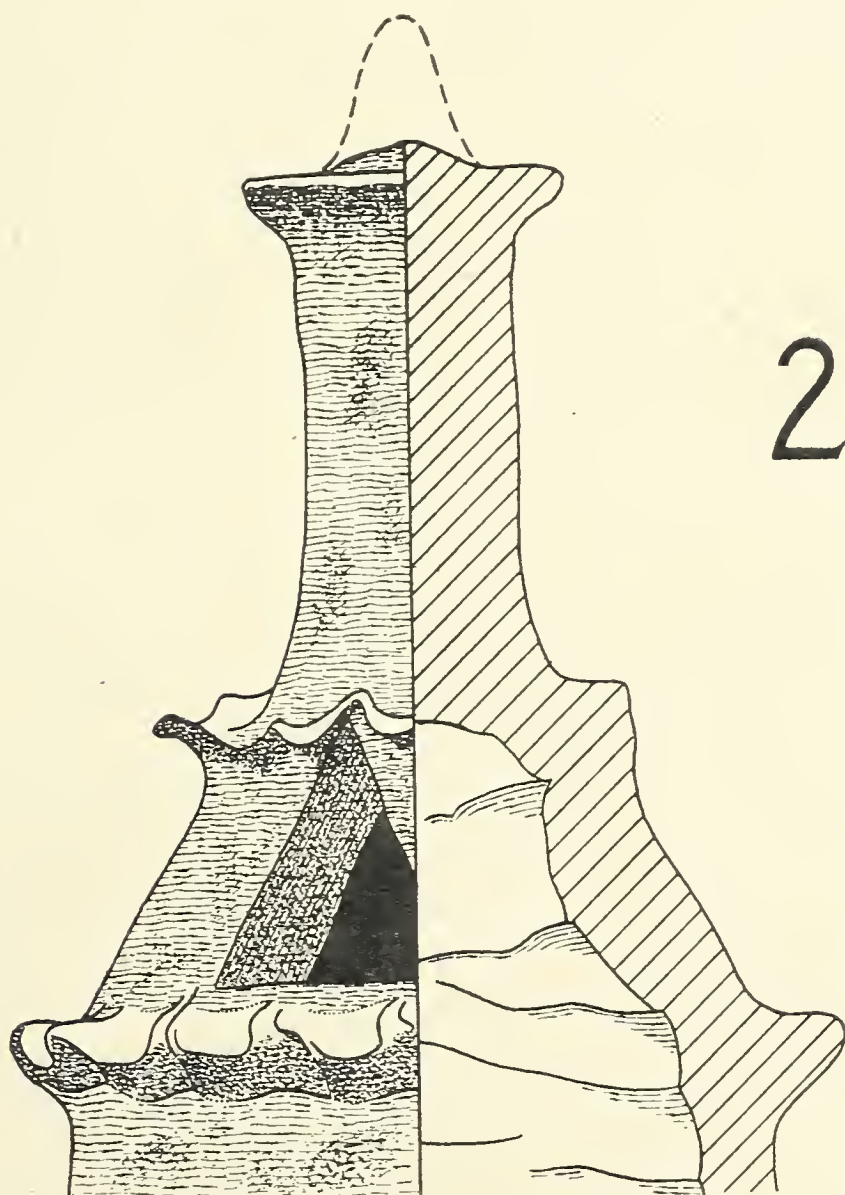
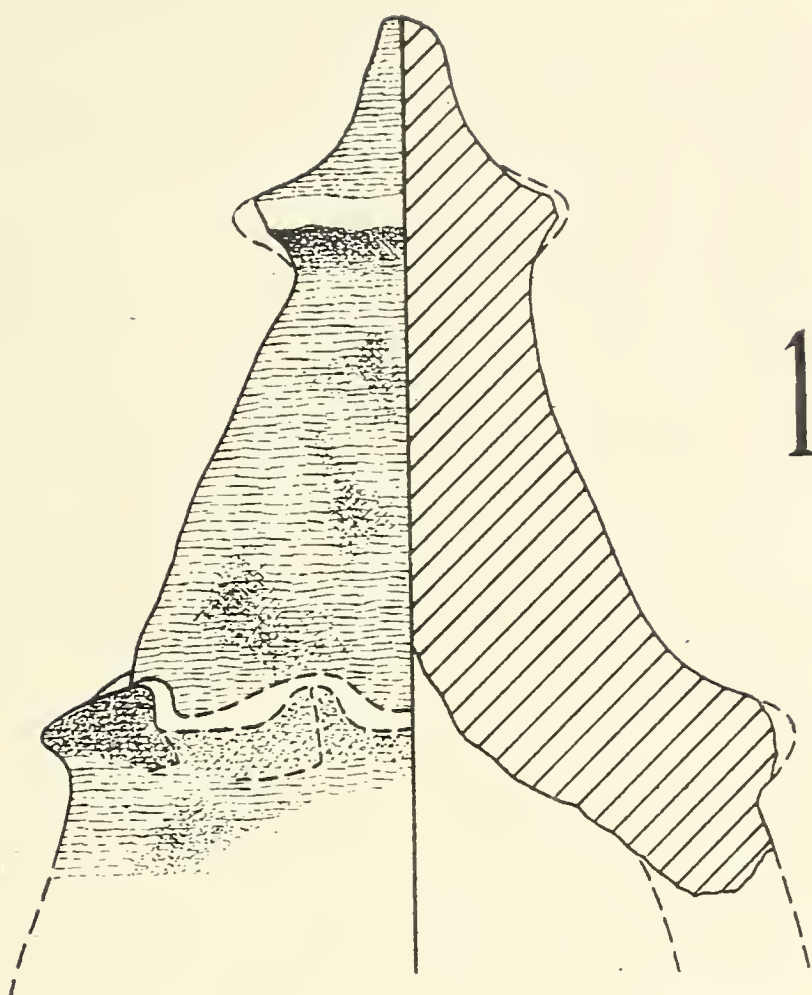
DUDLEY WATERMAN.

TWO FURTHER EXAMPLES OF ROMAN "VOTIVE LANTERNS."

The two fragmentary objects illustrated were recently recognised amongst the reserve material in the Yorkshire Museum, and although no details of provenance are available, there seems little doubt that they are from York. The pieces formed part of the cone-shaped tops of Roman "votive lanterns" or "lamp chimneys," of which three examples are already included in the museum collections (*Home, "Roman York,"* p. 163). A summary of British examples appeared in *Proc. Soc. Antiq. Scot.*, lxx, 391, and subsequent finds have been noted in *Antiq. Jour.*, xx, 282.

No. 1 of soft brick, and much worn, has a pointed finial, above a plain collar, with a frilled moulding below. No. 2, of harder pottery, has a cylindrical finial, with knobbed top (now missing) above a plain collar, and a frilled moulding at the base. A second frilled moulding, below, marks the full diameter of the lantern, and between the two occur three triangular apertures, evidently not spaced equidistantly around the circumference. A second zone of apertures is indicated by the surviving apex of one which occurs immediately under the lower moulding. In both cases the exterior is very roughly finished, with lumpy, finger-moulded surfaces.

DUDLEY WATERMAN.



ROMAN "VOTIVE LANTERNS" (Scale $\frac{1}{2}$).

THE interests of THE YORKSHIRE MUSEUM are primarily devoted to Natural History and Archaeology. Its fine collections cater not only for the general public, but also for specialist students in these two branches of cultural activity.

The Keeper would be interested to hear at all times of collections, large or small, which other institutions or private persons may have for disposal, and which could be used to extend the educational facilities already afforded the archaeologist, systematist and biologist at THE YORKSHIRE MUSEUM.



PRESENTED

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